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Spokane District Office

February 1986

Chopaka Mountain Wilderness Study

Environmental Assessment and Plan Amendment



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BUREAU OF LAND MANAGEMENT

SPOKANE DISTRICT OFFICE
East 4217 Main
Spokane, Washington 99202

February 10, 1986

Dear Reader:

The purpose of this final environmental assessment is to disclose the probable environmental impacts of designating or not designating the Chopaka Mountain Wilderness Study Area as wilderness. The environmental information gathered through this analysis and other data serves as the basis for the recommendation to Congress as to whether or not the area should be designated wilderness.

The environmental assessment analyzes three alternatives and identifies a preferred alternative. The preferred alternative is, in effect, the preliminary recommendation.

Included in this environmental assessment is a summary of the written comments received during the 90-day comment period and a brief summary of the testimony given during the two public hearings that were held on this subject. A Finding of No Significant Impact (FONSI) is attached to this document.

The FONSI, which incorporates the environmental assessment, is now being made available for a 30-day public review period. Any comments should be directed to Joseph K. Buesing, District Manager at Spokane District, East 4217 Main Avenue, Spokane, Washington, by March 21, 1986.

Sincerely,

Joseph K. Buesing
District Manager

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Final

Chopaka Mountain Wilderness Study

Environmental Assessment and Plan Amendment

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U.S. Department of the Interior
Bureau of Land Management

Spokane District Office
February 1986

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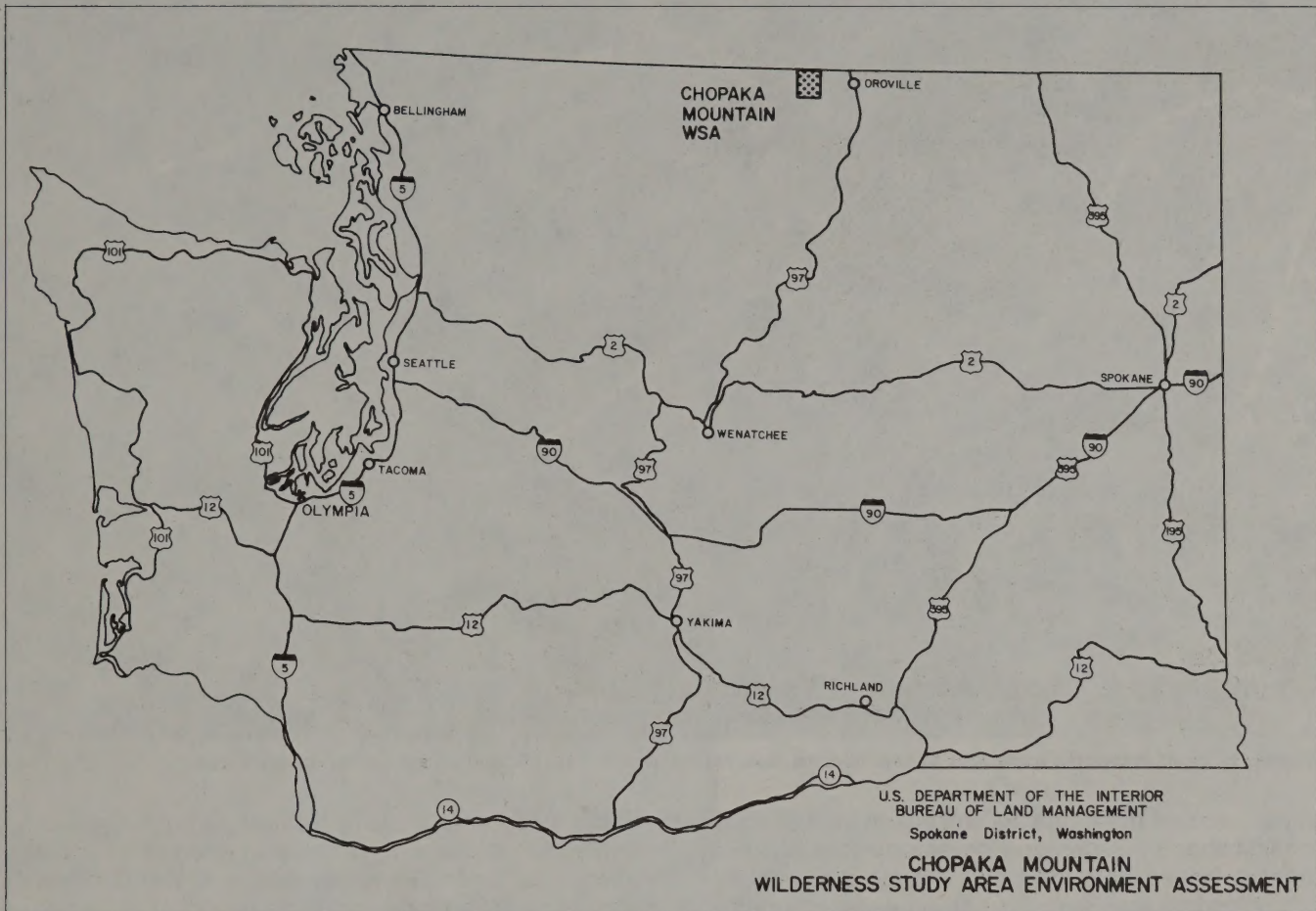
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Finding of No Significant Impact

Chapter 1

Introduction



MAP 1

Purpose and Need

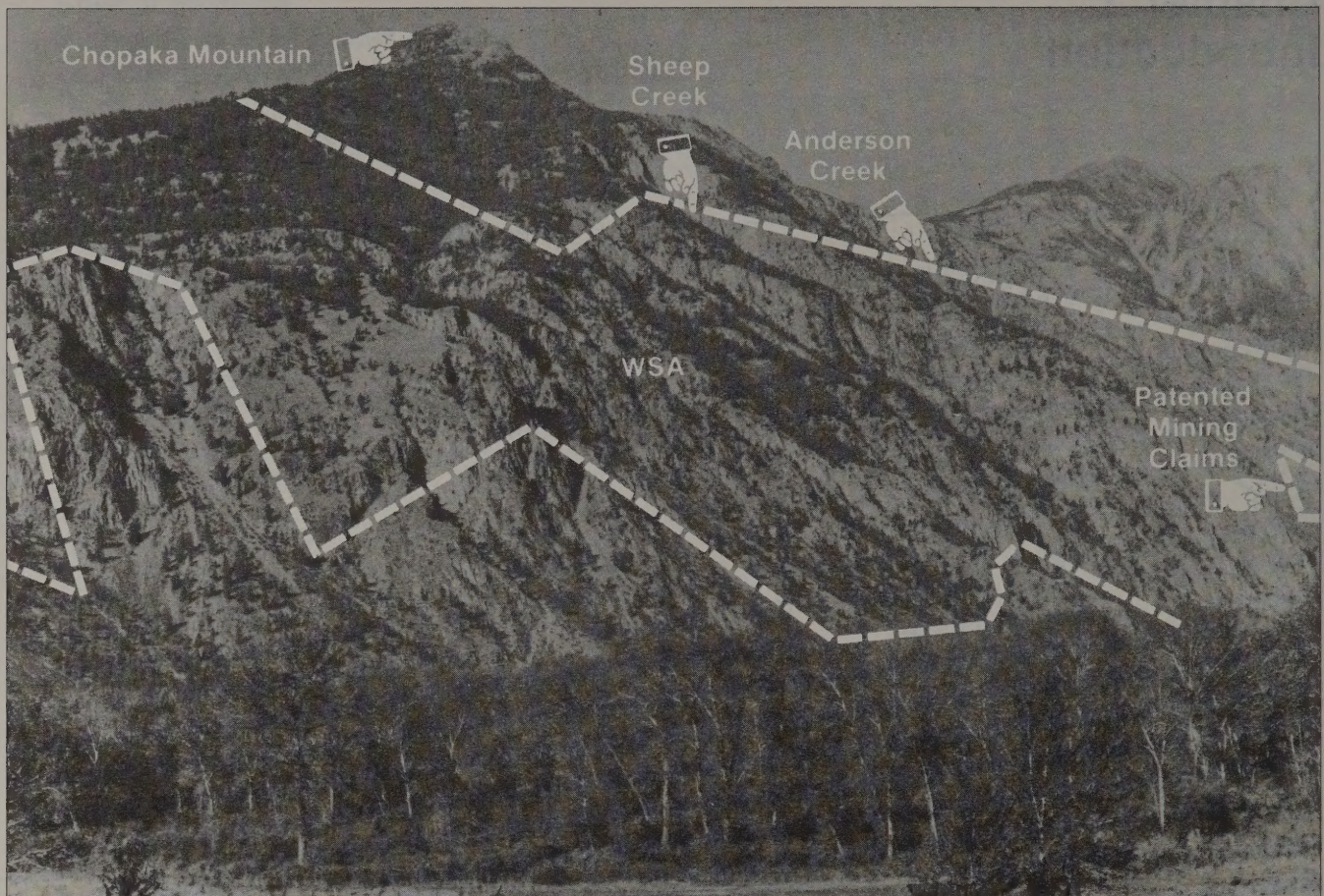
The land use plan prepared for the Spokane District in 1980—the Upper Columbia Management Framework Plan (MFP)—did not include a wilderness study of the Chopaka Mountain Wilderness Study Area because the wilderness inventory had not been completed. Therefore, it is necessary to amend the plan to conduct a wilderness review of the study area. The Federal Land Policy and Management Act of 1976 (FLPMA) requires that public lands with wilderness characteristics be reviewed and recommendations made as to their suitability or unsuitability for preservation as wilderness. This amendment and environmental assessment (EA) will meet that requirement.

Location

The Chopaka Mountain Wilderness Study Area (WSA) is the only wilderness study area on public land administered by BLM in the State of Washington. It contains 5,518 acres and is located along the easternmost edge of the North Cascade Mountain Range, approximately 6 miles east of the Pasayten Wilderness Area and 10 miles west of the community of Oroville in Okanogan County (Maps 1 and 2).

Planning Process

This document supplements the Upper Columbia Management Framework Plan for the Spokane District. It has been prepared using the Bureau's Planning System.



Chopaka Mountain Wilderness Study Area as seen from the east. The ridgetop and toe of the slope are outside the study area.

Initial steps of the planning process included identification of issues and development of planning criteria. Issues were identified through the receipt of public comments. Planning criteria were obtained from BLM's Wilderness Study Policy, and additional criteria were developed from the issues. The issues and planning criteria are described at the end of this chapter.

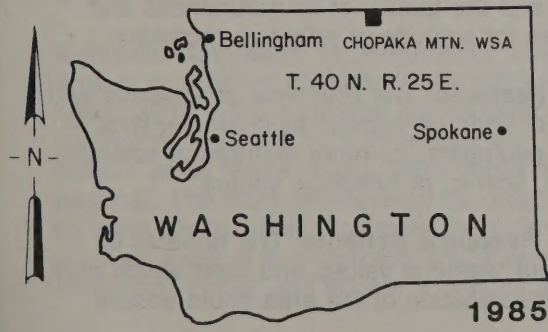
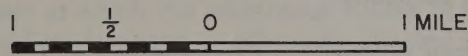
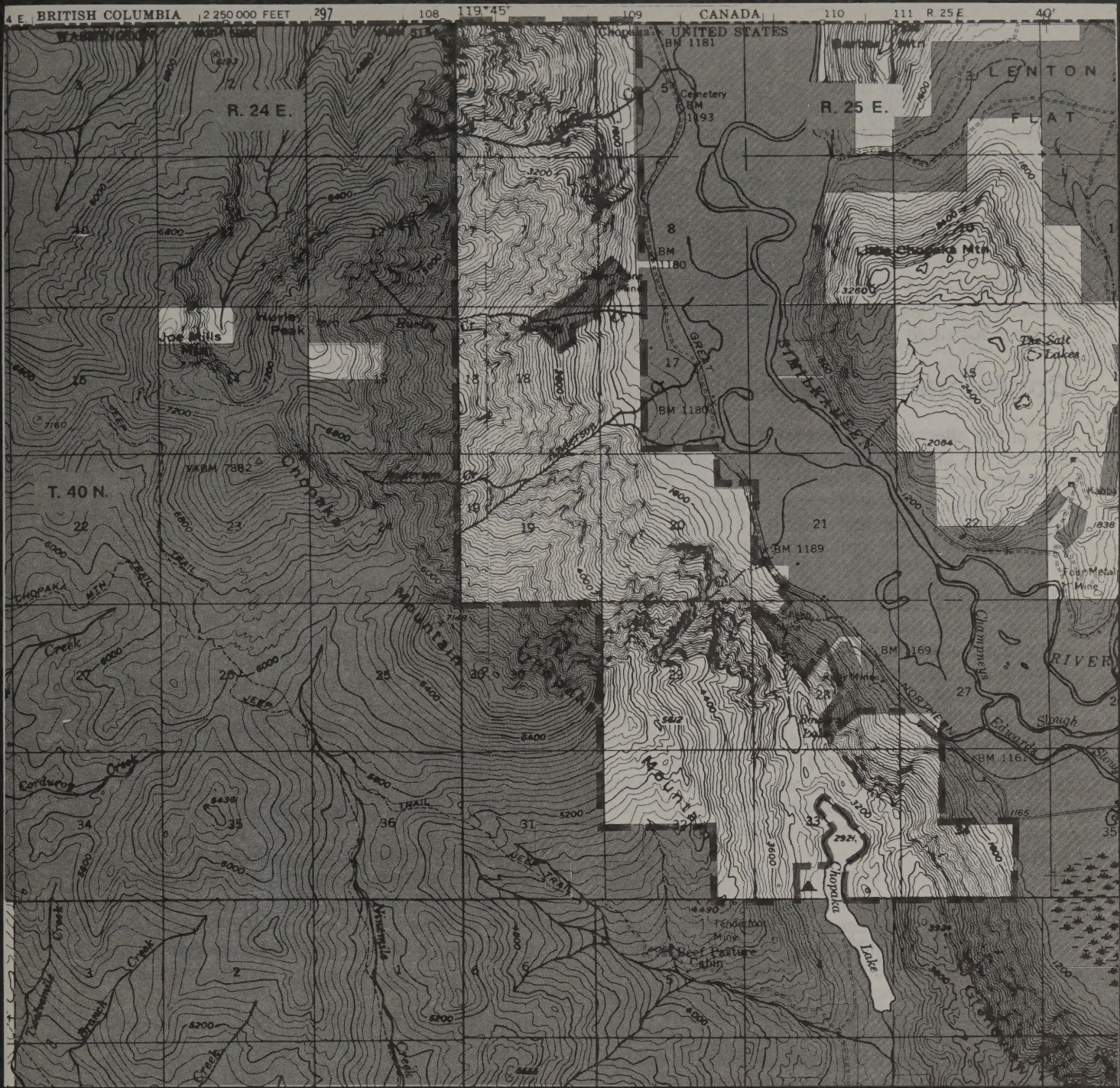
Requirements for Wilderness Study

In accordance with FLPMA, the Secretary of the Interior is required to review areas of the public lands that have been determined to have wilderness characteristics (wilderness study areas) and to report to the President recommendations as to the suitability or unsuitability of each study area for preservation as wilderness. Then the President makes recommendations to Congress. During the period of presidential review and until Congress acts on the President's recommendations, the Secretary of the Interior must manage the study area in a manner that will not impair the area's suitability for preservation as wilderness, subject to certain exceptions and conditions.

Each study area must be studied through the BLM multiple use planning process to analyze all values, resources, and uses within the area. The findings of the wilderness study, including public participation, determine whether these areas will be recommended as suitable or unsuitable for designation as a wilderness.

When a study has been completed, recommendations on suitability for designation as wilderness are submitted, along with supporting data, through the Secretary of the Interior and the President, to Congress. A mineral survey to determine minerals values for any area recommended as suitable will be conducted by the U.S. Geological Survey and Bureau of Mines. Reports on study areas must reach the President no later than October 21, 1991, and must reach Congress by October 21, 1993. In order to meet these dates, the Secretary has set the end of 1987 as the date when all wilderness studies will be completed by BLM.

At the conclusion of the planning and environmental assessment process, a wilderness study report will be prepared that addresses the wilderness study area (WSA). It represents the results of the study



KEY MAP

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Spokane District, Washington

CHOPAKA MOUNTAIN WILDERNESS STUDY AREA ENVIRONMENTAL ASSESSMENT

Chopaka Mountain Ownership Status

- BUREAU OF LAND MANAGEMENT LANDS
- STATE LANDS
- PRIVATE LANDS
- WILDERNESS STUDY AREA BOUNDARY

and contains BLM's wilderness recommendations. The study report will draw from the planning documents, the environmental assessment, and the results of public participation. Where appropriate, mineral survey reports will be attached to the study report prior to review by the Secretary of the Interior. Then Congress makes the final decisions concerning wilderness, since only it can designate an area as wilderness.

BLM's Wilderness Study Policy describes how the wilderness studies will be conducted. A copy of this policy is available at the Spokane District Office.

Conformance Statement

Two of the alternatives addressed in the plan amendment and environmental assessment are not in conformance with the existing land use plan (MFP). They include wilderness designation and other special designations which were not considered in the multiple use analyses in the plan.

Planning Issues

As a result of public meetings concerning the wilderness study area, and the management screening procedures conducted for the environmental assessment, five issues were identified. These issues, some of which are environmental concerns and some of which are land use planning concerns, were used as the focal point for the environmental assessment.

Minerals

Wilderness designation would constrain development of and access to private inholdings, unpatented mining claims, and mineral exploration on the rest of the study area. Fifty percent (2,800 acres) of this area has recently been classified by the U. S. Bureau of Mines as being an area of critical mineral potential. It is not known whether the area contains economically recoverable mineral deposits, but there are indications it may.

Wilderness Values

If the area is not designated wilderness, the major threat to wilderness values would be posed by potential mining activities on the patented and unpatented mining claims. Wilderness values could also be impaired by timber management on 385 acres of commercial forest land.

Wildlife

The present fire management policy for the Chopaka Mountain area is to actively suppress fire

on the mountain. This has allowed successional advancement and resulted in major changes in the densities and composition of the vegetation. This is partially responsible for the reduction in the population of mountain goats through the loss of preferred feeding habitat. Wilderness designation would preclude a prescribed burning project to improve mountain goat habitat in three drainages on Chopaka Mountain because the frequency and pattern of the proposed burns would exceed the natural situation.

Livestock Grazing

Concerns were raised about the possible effects of wilderness designation on livestock grazing. No intensive range developments are planned for the area, and there would be no significant conflicts between livestock grazing management and wilderness management.

Adjacent Land Use

The Washington State Department of Natural Resources is concerned about how wilderness designation of Chopaka Mountain would affect the adjoining state lands to the west and south which are managed for state school fund revenues. These lands are managed for the commercial commodities that they produce, such as forest products, various minerals, and livestock forage.

Planning Criteria

The BLM Wilderness Study Policy provides that two primary planning criteria will be used in all wilderness studies.

Criterion 1 - Evaluation of Wilderness Values

The amendment and EA must consider the extent to which each of the following components contributes to the overall value of an area for wilderness purposes.

- 1. Mandatory Wilderness Characteristics:** The area's size and the quality of its naturalness and opportunities for solitude or primitive recreation.
- 2. Special Features:** The presence or absence and the quality of optional wilderness characteristics — ecological, geological, or other features of scientific, educational, scenic, or historical values.
- 3. Multiple Resource Benefits:** The benefits to other multiple resource values and uses which only wilderness designation of the area could ensure.

4. Diversity in the National Wilderness

Preservation System: The extent to which wilderness designation of the area under study would contribute to expanding the diversity of the National Wilderness Preservation System by:

- a. Expanding the diversity of natural systems and features, as represented by ecosystems and landforms.
- b. Increasing the opportunities for solitude or primitive recreation within 1 day's driving time (5 hours) of major population centers.
- c. Balancing the geographic distribution of wilderness areas.

Criterion 2 - Manageability

The extent to which an area can be effectively managed to preserve its wilderness character must be considered.

Quality Standards

The Wilderness Study Policy also directs that the following six quality standards be used for analysis and documentation.

1. Energy and Mineral Resource Values:

Recommendations as to an area's suitability or nonsuitability for wilderness designation will reflect a thorough consideration of any identified or potential energy and mineral resource values.

2. Impacts on Other Resources: Wilderness suitability and nonsuitability recommendations will reflect a consideration of the extent to which other resource values or uses of the area would be foregone or adversely affected as a result of wilderness designation.

3. Impacts of Non-designation on Wilderness Values: In developing the recommendations, BLM will consider the alternative use of land under study if the area is not designated as wilderness, and the extent to which the wilderness values of the area would be foregone or adversely affected as a result of this use.

4. Public Comment: In determining whether an area is suitable or unsuitable for wilderness designation, considerations will be given to comments received from interested and affected publics at all levels—local, state, regional, and national. The BLM will develop its recommendations by considering public comment in conjunction with a full analysis of a wilderness study area's multiple resources, social and economic values and uses.

5. Local Social and Economic Effects: In determining whether an area is suitable or unsuitable for wilderness designation, the BLM will give special attention to any significant social and economic effects, as identified through the wilderness study process, which designation of the area would have on local areas.

6. Consistency with Other Plans: In determining whether an area is suitable or unsuitable for wilderness designation, the BLM will fully consider and document the extent to which the recommendation is consistent with officially approved and adopted resource-related plans of other federal agencies and state and local governments, and the policies and programs contained in such plans.

Additional Criteria

Besides the planning criteria and quality standards in the Wilderness Study Policy, 10 additional criteria were developed for this amendment and EA. These criteria are similar to those previously mentioned.

1. The study should consider a wide range of protective designations for areas clearly requiring protection.
2. Social and economic effects of all land use allocations should be considered.
3. The amendment and EA should consider resource values which would be foregone due to restrictive land use allocations.
4. The potential for energy and mineral resource development should be considered.
5. Timber values, either gained or foregone, should be considered for each alternative.
6. The adverse and beneficial environmental impacts which could result from the implementation of any alternative should be considered.
7. Wildlife, both terrestrial and aquatic, should be maintained at reasonable levels.
8. Threatened or endangered species of plants and wildlife should be protected under all alternatives. Protection of unique vegetative types should be considered.
9. Cultural resources should be protected under all alternatives.
10. The effects of the alternatives on scenic quality should be considered.

Chapter 2

Alternatives, Including the Preferred Alternative

Introduction

Three alternatives were analyzed: Alternative 1, All Wilderness; Alternative 2, No Wilderness (the preferred alternative); and Alternative 3, No Action. A partial wilderness alternative was also considered but was not analyzed because, after the areas with conflicting land uses were eliminated from the portion recommended as suitable for wilderness, the remaining portion lacked the values necessary for wilderness consideration.

Alternative 1 - All Wilderness

All 5,518 acres in the study area would be designated wilderness (Map 2). The wilderness would be managed in accordance with the mandates of the Wilderness Act and BLM's Wilderness Management Policy. A copy of the management policy can be obtained from the Spokane District Office.

The Congressional mandate in the Wilderness Act contains three basic concepts which form the basis for BLM's Wilderness Management Policy.

- **Wilderness Preservation Concept:** Congress directed BLM to perpetuate the wilderness resource by managing designated wilderness areas so their wilderness character is preserved unimpaired.

- **Wilderness Use Concept:** Congress directed BLM to provide opportunities for the public to use designated wilderness areas for recreational, scenic, scientific, educational, conservation, and historical purposes in a manner so as to leave the wilderness area unimpaired for future use and enjoyment.

- **Nonconforming Use Concept:** Congress directed BLM to accommodate in wilderness areas certain activities, existing uses, and private rights which are generally nonconforming to wilderness preservation and wilderness use. The Wilderness Management Policy contains a full list of nonconforming but accepted uses. In the Chopaka Mountain Area, they would include—but not necessarily be limited to—existing private rights; control of fire, insects, and disease; mining; grazing; and access to nonfederal inholdings.

A wilderness management plan would not be developed until after Congress designated the area

wilderness. However, some of the general aspects of how land in a Chopaka Mountain Wilderness would be managed follow:

- 1. Minerals.** The area would be closed to new mineral entry and leasing. However, holders of mining claims who established valid rights to their claims before the area was designated wilderness would be able to develop their claims, even if the development would impair wilderness values. Mining could occur on the 95-acre private inholding, and access across public lands to the inholding would be granted.

- 2. Wildlife.** The area would remain open to hunting and fishing under state regulation.

- 3. Livestock Grazing.** The number of livestock permitted to graze in the area would be determined in the same manner as it would be if the area were not designated wilderness. Any adjustments upward or downward would be made through the normal grazing and land management planning and policy setting processes and would be based on a monitoring of vegetation conditions and trend. Grazing use would not be curtailed because the area was designated wilderness. Grazing facilities could be maintained. The use of motorized vehicles and equipment for livestock management and facilities maintenance would be restricted, but occasional use would be allowed if there were no practical alternatives. Map 3 delineates the location of existing grazing leases.

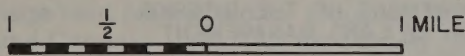
- 4. Recreation.** The area would remain open to primitive types of recreation activities such as hiking, backpacking, hunting, and fishing. The area would be closed to off-road vehicles.

- 5. Forest Management.** Timber harvest would be precluded.

Alternative 2 - No Wilderness (Preferred Alternative)

Under this alternative, lands in the study area would be recommended as nonsuitable for wilderness designation. The lands would be managed in accordance with the decisions made in the 1980 Upper Columbia Management Framework Plan, except that the plan would be amended to include an Area of Critical Environmental Concern (ACEC). (See map 4.) Principal features of the management of the area would be as follows.





- 1. Minerals.** All lands would remain open to mineral entry. In the ACEC prospecting and mining operations could be conducted only after the claimant prepares a plan of operations and has it

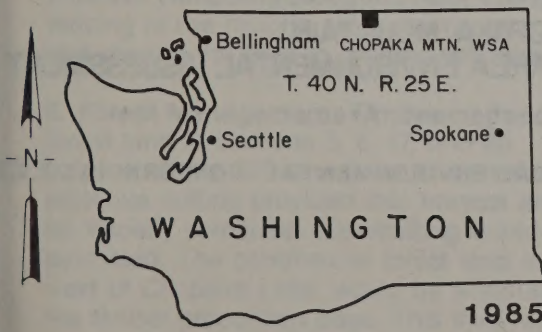


U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Spokane District, Washington

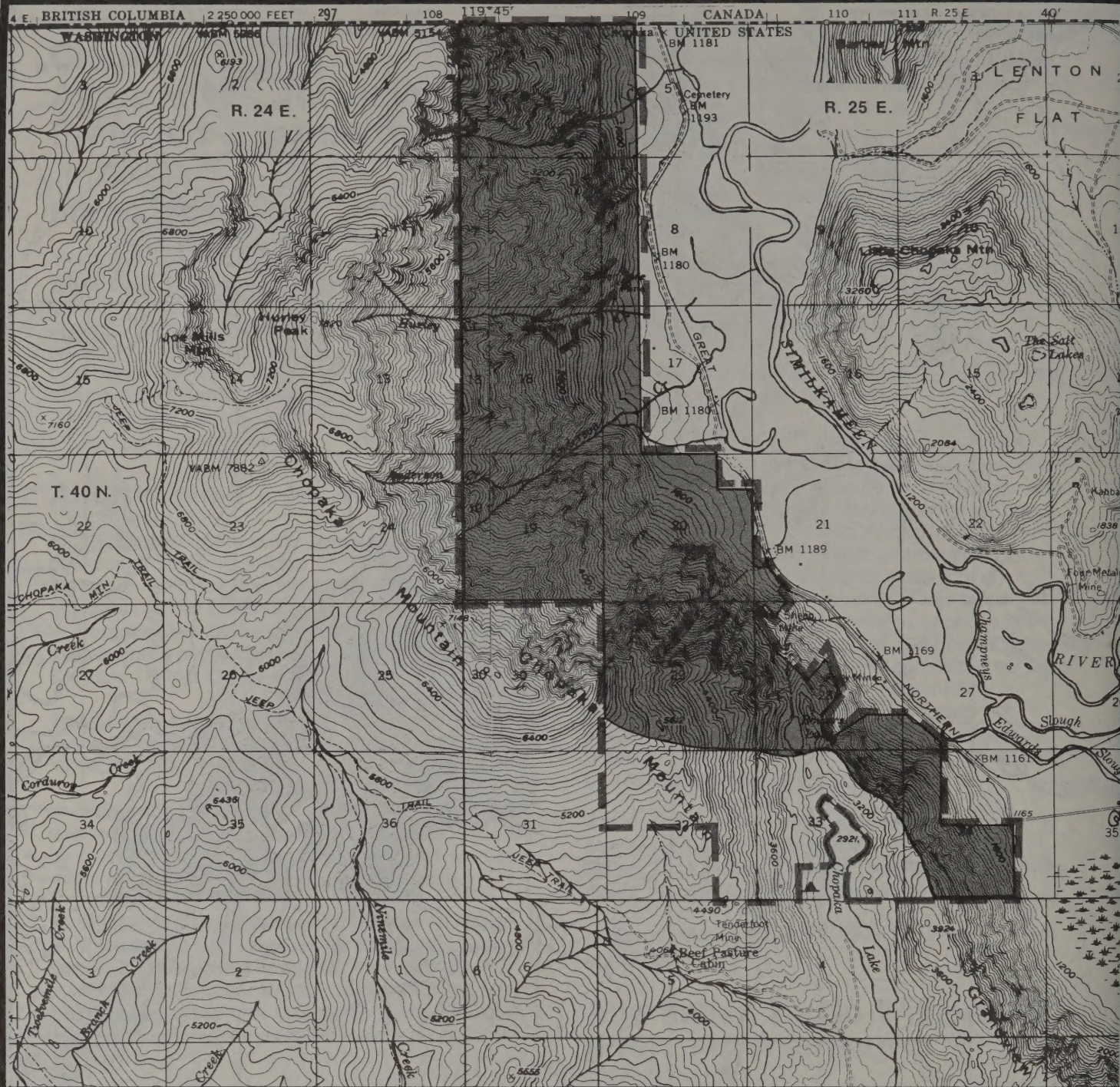
CHOPAKA MOUNTAIN WILDERNESS STUDY AREA ENVIRONMENTAL ASSESSMENT

Chopaka Mountain Existing Allocations And Improvements

-  APPROXIMATE LOCATION OF MINING CLAIMS
-  APPROXIMATE LOCATION OF EXISTING GRAZING LEASES
-  APPROXIMATE LOCATION OF EXISTING LIVESTOCK FENCES
-  TIMBER MANAGEMENT AREA



KEY MAP



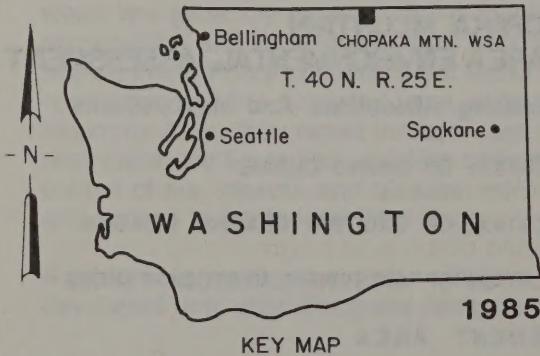
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U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Spokane District, Washington

**CHOPAKA MOUNTAIN
WILDERNESS STUDY AREA ENVIRONMENTAL ASSESSMENT**
Special Management Areas

■ AREAS OF CRITICAL ENVIRONMENTAL CONCERN (A.C.E.C.)



reviewed and approved by BLM in accordance with the regulations in 43 CFR 3809.1-4.

2. Wildlife. The area would remain open to hunting and fishing. An Area of Critical Environmental Concern would be designated on 4,468 acres of mountain goat habitat, to focus management on enhancement of the habitat. (An Area of Critical Environmental Concern is defined in Section 103(a) of the Federal Land Management and Policy Act as "an area within the public lands where special management attention is required (when such areas are developed or used, or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.") A prescribed burning project would be implemented to improve the goat habitat along Sheep, Hurley, and Jewett Creeks, three of the four drainages within the goat range on Chopaka Mountain (Map 5). Only 50-100 acres of each drainage would be burned at any one time, and no more than one drainage would be burned in a given year. The frequency with which the burning would be repeated would be determined by monitoring the vegetative response. At present, it is believed that the burning would be repeated approximately every 20 years. Aerial fire retardant and hand crews would be used to contain the fires; no motorized equipment would be used. The Anderson Creek drainage would not be included in the prescribed burn.

3. Livestock Grazing. The "custodial" grazing program would be continued. The livestock carrying capacity would be adjusted upward or downward as required; adjustments would be based on a monitoring of vegetative condition and trend. No major range improvements are planned; maintenance of existing facilities would continue on an as-needed basis.

4. Recreation. The area would be open for hunting, camping, hiking, and other recreation activities that would not result in unnecessary or undue degradation of the environment. A recreation management plan would be prepared for the area around Chopaka Lake. The plan would provide for primitive campsites along the lake; trails; signs; fencing of the historic cabin, barn and root cellar; and closing the area to off-road vehicles.

5. Forest Management. Timber on the commercial forest land in sections 5, 8, 17, and 20 (approximately 220 acres) would be subject to selective cutting provided that harvest areas could be visually screened. Clearcutting would not be permitted. The commercial forest land in section 32, west of Chopaka Lake, would be withdrawn from the timber production base. This involves

approximately 165 acres. No permanent haul or access roads would be permitted.

Alternative 3 - No Action

Under this alternative, the study area would be recommended as nonsuitable for designation as wilderness. The lands would be managed in accordance with the 1980 Upper Columbia Management Framework Plan and the plan would not be amended to incorporate the Area of Critical Environmental Concern. Except for the following, management of the area would be the same as that described for Alternative 2.

1. Minerals. All of the area would remain open to mineral entry. A plan of operation would be required only when the proposed operations would cause a cumulative surface disturbance of more than 5 acres during a calendar year. Mining operations would be regulated by the provisions of 43 CFR 3809.

2. Wildlife. In addition to the areas which would be burned under Alternative 2, the prescribed burning project would be implemented in the Anderson Creek drainage.

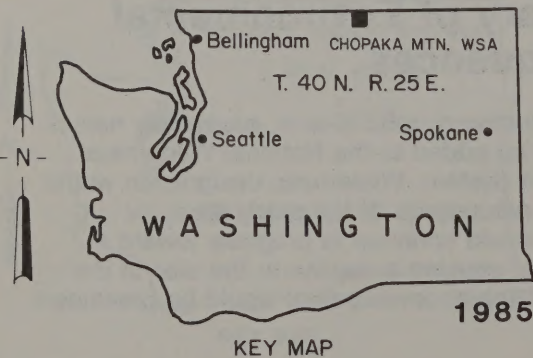
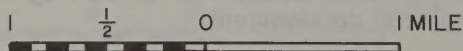
3. Forest Management. Timber on the commercial forest land in sections 5, 8, 17, 20, and 32 would be subject to selective cutting, provided that harvest areas could be visually screened. This would involve approximately 385 acres of commercial forest land. No permanent access or haul roads would be permitted.

Rationale for Selection of Preferred Alternative

The proposed alternative would provide a high degree of protection for the environmental qualities that the public has viewed as important. Designations of an ACEC on portions of the study area, and the multiple use decisions previously made in the management framework plan, will respond to the known issues while preserving the option for mineral development.

Summary of Environmental Consequences

Under Alternative 1, a 5,518-acre, essentially natural area would be added to the National Wilderness Preservation System. Wilderness designation would protect the naturalness of the study area. Vegetation would continue to progress toward a climax stage, causing a decline in the size of the goat herd. Mineral development would be precluded



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Spokane District, Washington
CHOPAKA MOUNTAIN
WILDERNESS STUDY AREA ENVIRONMENTAL ASSESSMENT
Prescribed Fire Management

NO WILDERNESS ALTERNATIVE
 NO ACTION ALTERNATIVE

except on any mining claims that were valid on the date of designation. The modest, potential economic loss due to prohibition of timber harvest might be offset by increases in primitive recreational activity.

Under Alternative 2, natural ecological processes in the study area would be disrupted by prescribed burning in three drainages. Fishing and camping activities around Chopaka and Bowers Lakes would reduce opportunities for solitude. Burning would cause moderate temporary soil erosion increases, and increases in sediment in streams and annual water yield, but would restore early successional vegetation stages in the burned areas, permitting a substantial increase in the goat herd. Potential mineral development and timber harvest could benefit the local economy. Mining activity, if realized, would result in surface disturbance around mine shafts, most likely involving disturbance of no more than 5 to 10 acres. This would result in the loss of some vegetation and localized soil erosion. Access roads would be another potential source of disturbance. This would also result in the loss of vegetation and some localized soil erosion. In either case, no significant impacts are anticipated. Potential mineral development could benefit the local economy. The impacts associated with timber management (such as falling, yarding, and hauling of timber) would be short-term in nature and would not result in any significant impacts. Timber harvest activity would also have some minor benefits to the local economy.

Alternative 3 would have similar impacts to those described for Alternative 2. Additional burning would expand the area where natural ecological processes are disrupted, soil erosion, sediment and water yield temporarily increase, and early successional vegetation stages are restored. More substantial increases in the goat herd could occur.

In summary, no significant impacts were identified during the course of the wilderness study or during the analysis of impacts associated with any of the alternatives.

Chapter 3 Affected Environment

Climate

The summers are sunny, warm, and dry. Frequent weather changes occur in winter due to Pacific weather systems and occasional invasions of Arctic air masses of Canadian origin. The daily temperature average around 27 degrees in the winter and around 70 degrees in the summer. Annual precipitation is approximately 30 inches, most of which falls during the fall and winter months. The average winter snowfall ranges from 20 to 35 inches in the valley areas to around 100 inches on the mountain. Electrical storms are frequent between the months of April and October and usually occur in isolated cells.

Air Quality and Noise Factors

The air quality within the WSA meets the ambient air quality standards. Chopaka Mountain WSA is located within the Northern Washington Intrastate Air Quality Control Region. There are no non-attainment areas within this region. (A non-attainment area is an area that does not meet air quality standards.)

The noise factors apparent from within the WSA are mainly related to agriculture and recreational activities. Sounds from farm tractors can be heard along with noise from the intermittent vehicular traffic on the dirt road in the Similkameen River Valley. Noise from vehicles and camping activity at Chopaka Lake Campground can be heard throughout the southern end of the WSA in sections 33 and 28, T. 40 N., R. 25 E.

Topography and Soils

The Chopaka Mountain Wilderness Study Area is located on the east-facing slopes of Chopaka Mountain and Hurley Peak. Three-quarters of the area is very steep, with slopes ranging from 45 percent to nearly vertical cliffs. The gentler portions (about 10 percent of the area) are found on the toe slopes of the mountains near the eastern boundary of the northern two-thirds of the WSA, and around Bowers and Chopaka Lakes at the south end of the WSA. The soils are generally poorly developed, gravelly, and shallow with extensive rock outcroppings.

Water Resources

Four perennial streams flow through the study area: Jewett, Hurley, Anderson and Sheep Creeks. The stream beds are narrow and steep, resulting in a rapid flow. These streams are subject to periodic flash flooding. Consequently, sediment deposition on the rangeland in the valley bottom near the mouth of the streams is not uncommon.

Of these four creeks, only Sheep Creek flows directly into the Similkameen River. Both Anderson and Jewett Creeks flow into a remnant oxbow of the Similkameen River. These oxbows serve as natural settling ponds for sediment during peak flow periods. The overflow from these oxbows enters the Similkameen River. The water from Hurley Creek does not enter into the Similkameen River in a concentrated flow. Its water spreads over and sinks into the ground shortly after leaving the WSA. Water from Jewett and Anderson Creeks has been used for irrigation on adjacent farm lands in the Similkameen River Valley. These streams and lakes are classified by the Washington State Department of Ecology as having Class "A" and "Lake Class" water quality ratings, respectively. The water quality of these classes is rated as being excellent and must meet or exceed the requirements for all, or substantially all, uses.

Vegetation

There are several plant communities within the study area. This is due in part to its considerable topographic relief. A sagebrush-steppe plant community is found at the base of the mountain. This community gives way to a ponderosa pine/Douglas-fir type at the lower and middle elevations (2,000 to 4,000 feet). Above 4,000 feet, subalpine fir and whitebark pine predominate.

A threatened and endangered plant inventory was conducted, and eight species proposed for state listing were found in and/or near the study area. These species are regarded as sensitive by the BLM. They were found mainly in micro-habitats created by cliffs, talus slopes, seeps, creeks, differing soil depths, and aspect within the ponderosa pine/Douglas-fir and the whitebark pine/subalpine fir plant communities. The eight sensitive species are:

Draba aurea - yellow draba¹

Dodecatheon pulchellum var. *watsonii* - few-flowered shooting star¹

Potentilla quinquefolia - five-leaved cinquefoil

Potentilla nivea - snow cinquefoil

Potentilla diversifolia var. *perdissecta* - diverse-leaved cinquefoil¹

Salix tweedyi - Tweedy's willow

Gentiana glauca - glaucous gentian

Carex scirpoidea var. *scirpoidea* - Canadian single-spike sedge

The footnoted plants are known to exist on the study area. The upper Anderson Creek drainage contains the largest concentration of these plants. All other plants have been found on the adjacent state lands west of the WSA and may occur within the WSA.

Wildlife

Because of its rugged, steep topography, the wilderness study area supports numerous types of wildlife habitat and a variety of special habitat features. These are inhabited by a wide variety of animals, ranging from chukars, black-billed magpies, and white-tailed deer at lower elevations to gray jays and mountain goats at upper elevations. White-tailed ptarmigan may also occur in the upper elevation of the WSA, but most likely only during the winter months. Raptor species inhabiting the area include the northern goshawk, sharp-shinned hawk, red-tailed hawk, rough-legged hawk, golden eagle, northern harrier, American kestrel, and several species of owls. Mule deer are common, but not abundant. Waterfowl and shore birds are limited to the Chopaka Lake and Bowers Lake area. Introduced rainbow trout inhabit Chopaka Lake.

Mountain goats are the most prominent species in the study area. Approximately 130 animals (1981 census) live on the slopes of Grandview and Chopaka Mountains. During the winter most of the goats inhabit the lower slopes within the study area and on Grandview Mountain; but as the snows recede, the animals disperse up the mountains, some moving into the high peaks and ridges on adjoining Washington State DNR land.

The first sightings of mountain goats in the Chopaka Mountain area occurred between 1910-1915. It is believed that the goats moved into the area from Canada and numbered less than 20 at the time. After a fire burned portions of the mountain in 1929, the goat population rapidly increased to an estimated peak of 300 animals (242 counted) in 1941. This population has declined to approximately 100 animals at present. The Washington State Department of Game anticipates this population to reduce further due to the successional advances of vegetation.

There are no known threatened or endangered animal species inhabiting the area.

Grazing

The WSA contains portions of four grazing allotments. Four permittees are licensed for approximately 455 AUMs on approximately 3,500 acres in the study area. Livestock graze in the study area from June 1 to September 30. The existing management framework plan provides for a continuation of custodial management. No intensive range developments are planned (Map 3).

Most of the grazing occurs on the gentler slopes in the sagebrush steppe, ponderosa pine/Douglas-fir habitat types. No grazing occurs in the whitebark pine/subalpine fir plant community.

Cultural Resources

Four historical-archeological sites have been identified in the WSA. One Native American site contains a number of semi-subterranean pits in a talus slope. It has been disturbed by removal of talus material to a depth of 6 to 8 feet below the original surface. A second site contains one semi-subterranean pit in a talus slope. The site is unusual because the pit represents a prehistoric technology that has been carried forward to the historic period. The third consists of a rock wall that was constructed between two granite boulders. The construction of this feature represents prehistoric technology carried forward into the historic period. The fourth consists of a cabin, barn, and root cellar near Chopaka Lake that may be of some historical significance.

Visual Resources

Under the guidelines of BLM's visual resource management system, the study area is classified as having Class C scenic quality. A Class C area contains land features which are fairly common in the physiographic region. These guidelines are available in the Spokane District Office.

Recreation

Due to the steepness of the WSA, good recreational opportunities are limited to about 2 square miles in the southern portion. Best opportunities are for fishing and camping at Chopaka Lake and hunting throughout the WSA. The northern half of the lake is surrounded by the WSA. The southern half extends beyond the boundary of the WSA for a little over three-quarters of a mile. A cooperative BLM, State Department of Natural Resources, and State Department of Game campground is located on the edge of the lake just outside of the WSA in section 33. Most of the recreation activity in the area occurs on or around the lake. Camping and fishing begin



Aerial view of the south end of the study area, looking north. The snow-covered, south half of Chopaka Lake is located outside the study area.

each year after the snow melts and the road to Chopaka Lake is opened. This lake is considered to be one of the top "fly-fishing-only" lakes in Washington. These activities continue through the summer into the late fall. In the fall, hunting seasons open, and hunters frequent the area until access closes in the winter. Other, less popular, recreation activities in the area include motorcycle trail riding, hiking, jogging, and float plane camping. It is estimated that people spent 2,765 recreation visitor days in the area in 1981 (Map 5).

Energy and Minerals

Gold was mined in the 95-acre privately owned inholding in the north part of the study area. There was mining activity as recent as 1982, at the Ruby Mine just outside the southeast boundary of the study area. Fifteen unpatented mining claims, containing a total of 300 acres, are located in the northern and southern portions of the WSA (Map 3 and 6). No mining is occurring in the WSA at present. The WSA is known to contain deposits of gold, lead, silver, zinc, copper and tungsten. These

are "locatable" minerals for which mining claims can be filed under the provisions of the General Mining Laws. Insufficient quantities of these minerals have been found in the WSA to make it economically feasible to mine them under current economic conditions. Geochemical sampling has indicated the presence of some copper around Chopaka Lake at the south end of the WSA and a heavy metal anomaly around the Ruby Mine at the east edge of the study area. No other exploration has been performed, in part because of the difficulty in traveling in the area. There are two other mines located adjacent to the WSA. These mines, the Sheep and Golden Zone, have been inactive for many years.

In 1983, 2,800 acres (50 percent) of this WSA were classified by the U.S. Bureau of Mines as being an area of critical mineral potential. This classification was made in order to recognize mineral potential of the area.

No leasable minerals are known to exist in the study area. Leasable minerals are those which may

be leased under the Mineral Leasing Laws. They include oil, gas, coal, and several other minerals.

Wilderness Values

During the wilderness inventory, it was determined that the study area was in an essentially natural condition and offered sufficient opportunities for solitude to qualify as a wilderness study area.

Chapter 4 contains an evaluation of the wilderness characteristics.

Forest Products

Approximately 385 acres of commercial forest land are located at the lower elevations of the WSA. Because of the wilderness study, these lands are temporarily excluded from the timber harvest base. Inclusion of these lands in the district's allowable annual timber harvest base would contribute about 35,000 board feet to the district's annual allowable cut level (Map 4).

Economic Conditions

The resources within the WSA may generate economic activity in four main sectors: mining, grazing, timber, and recreation. Such activities can be described using two different economic methods. One measures the local economic impact by estimating the amount of expenditures that are generated by the resource. For example, the money that ranchers who graze livestock on public lands spend in the local economy generates additional expenditures, and therefore personal income to local businesses and employees. The total generated personal income (direct and induced) is a measure of the impact that the resource—in this example, the livestock forage—has on the local economy.

The other way to measure economic activity is in terms of economic value. Although consumer expenditures may be useful in estimating the economic impact of a resource (such as recreation), they do not measure the value which consumers (recreationists) themselves receive from the experience. For some resource outputs, the market place provides a convenient indicator of the values placed upon a resource by the consumer. For other resource outputs, indirect measures are used to estimate these economic values.

Table 1 (see page 16) lists local personal income generated by, and economic values of, the four potential resources within the study area.

Mining

There are 15 unpatented mining claims located in the study area. No development of these claims is taking place. Presently there is no local personal income generated by these activities.

Grazing

Livestock grazing permittees are licensed for 455 animal unit months (AUMs) in the study area. These AUMs generate an annual total of \$9,682 in local earnings through expenditures (455 AUMs x \$21.28 direct and induced multiplier = \$9,682). The U.S. Department of Agriculture estimates the value of an AUM on public land in Washington in 1981 to be \$8.18. The net economic value of grazing in this study area is \$3,722 (455 AUMs x \$8.18 = \$3,722).

Timber

The average stumpage value of the 35,000 board feet that the study area would contribute to the District's allowable cut is \$30 per thousand board feet (MBF). The personal income that would be generated from the 35 MBF is \$9,368.

Recreation

As in grazing, local economic impact is generated by recreationists in that their local expenditures represent an increased demand for goods and services. In terms of 1981 dollars, the 2,765 recreation visitor days generate about \$24,166 in local income (\$8.74 per day income multiplier x 2,765 recreation visitor days = \$24,166). The U.S. Forest Service recommends the use of \$7.09 (1981 price) as an estimate of the net economic value per activity day of recreation (fishing) use. The net value of the recreation generated by the 2,765 visitor days is therefore \$19,603 (2,765 x \$7.09 = \$19,603).

Social Conditions

The social environment includes the people with grazing allotments in the study area, visitors who come to the area for recreational activities, the owners and managers of adjacent property, people in nearby communities affected by the expenditures by the leases and the visitors, people in the local area affected in noneconomic ways by the presence of nonlocal visitors, and local and nonlocal people who are concerned with the issues of mineral development and wilderness preservation. These people's perceptions and experiences make up the social conditions which may be affected by BLM's land use decisions.

During the wilderness inventory (1978-80) there was a frequently expressed concern that wilderness designation would severely constrain livestock grazing operations. That concern appears to have been reduced with increasing awareness that grazing systems would not be disrupted. Some members of the public now believe that wilderness designation could have some positive effects on livestock operations through the restrictions imposed on mineral developments.

Other concerns include the impact of wilderness designation on wildlife management, on the development of mineral deposits, and on the Washington State Department of Natural Resources (DNR) which manages the land immediately west of the study area. The Washington State DNR concern is based on the belief that, if the Chopaka Mountain study area is designated wilderness, the DNR would be subject to social pressure to change its management practices on lands that would then be located between two wilderness areas.

Table 1. Local Personal Income and Economic Values of the Resources of the Chopaka Mountain Wilderness Study Area-1981

	Units	Net Economic Value	Local Personal Income ¹
Mining	15 mining claims	0	0
Grazing	455 animal unit months	\$ 3,722	\$ 9,682
Timber	35 thousand board feet annual yield	\$ 1,050	\$ 9,368
Recreation	2,765 recreation visitor days	\$19,603	\$24,166

¹ Estimates of local personal income attributable to resources in the study area were developed by using input/output multipliers for Grant County, Oregon, a similar rural area.

Chapter 4

Analysis of Wilderness Values

Naturalness

Section 2(c) of the Wilderness Act says that a wilderness area "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable." The language in the Act makes clear that areas which "generally appear" natural, but contain some imprints of man's work, may be designated as wilderness, so long as those imprints are "substantially unnoticeable" in the wilderness area as a whole. Some study areas have minor imprints within their boundaries which are substantially unnoticeable in the area as a whole. Although these imprints were not sufficient to prevent the areas from being identified as study areas, they are further evaluated during the study process to determine the extent to which their presence affects the quality of overall naturalness of the area as perceived by the average visitor.

The Chopaka Mountain Wilderness Study Area appears to be in a generally natural condition. This is particularly true in the northern two-thirds of the area, where the only evidence of human activity is a fence. The southern third contains several minor imprints which are somewhat noticeable because of the limited vegetative screening. They also are located in the portion of the study area which is most used by the public. The imprints include heavy shoreline compaction from recreational vehicle use around Chopaka Lake, 4 miles of barbed wire fence, 4 miles of ways, and three historical structures.

The 95-acre private inholding in the northern part of the study area contains some minor signs of past mining activities. Visual impacts associated with developments outside of the area consist of a broad view of several thousand acres of farm and ranch land located to the east and southeast. From higher elevations in the study area, a person can see a broad mosaic of colors and patterns formed by the agricultural lands. Other outside developments which can be seen from within the study area include a county road at the east edge of the area and a campground at Chopaka Lake. The county road extends into Canada and receives a moderate amount of traffic. The campground has minimal facilities. It receives fairly heavy use during fishing and hunting seasons, and very heavy use during holiday periods.

The sounds of livestock, farm machinery, and vehicular traffic can be heard in the unit.

The sights and sounds of new timber management and mining activities on state lands above and to the west of the study area could detract from the area's naturalness in the future. The state-owned upper slopes of Chopaka Mountain can be seen from much of the study area. The Washington Department of Natural Resource emphasizes timber harvest and mining in its management of these lands. In addition to this, two chromite deposits with unpatented mining claims are located on the isolated tracts of public land within this area. Most of this area is accessible by mining roads.

Opportunities for Solitude or Primitive and Unconfined Types of Recreation

The Wilderness Act says that a wilderness area has "... outstanding opportunities for solitude or a primitive and unconfined type of recreation." It was determined during the wilderness inventory that the Chopaka Mountain Wilderness Study Area had sufficient opportunities for solitude to qualify as a wilderness study area. However, those opportunities are limited by the study area's narrow shape, relatively small size, limited vegetative and topographic screening, and the sights and sounds of activities on lands outside the study area. The north and north-central portions of the area are only 1.25 miles wide. On over 77 percent of the WSA, the slope gradient averages approximately 55 percent and in some areas it reaches a vertical configuration. Consequently, these portions of the WSA are relatively inaccessible to most recreationists or are unsuitable for most recreational activities such as camping and hiking. Opportunities for rock climbing are also limited because the most attractive areas for rock climbing are located on the adjoining state lands above the WSA. In addition, the unconsolidated nature of the parent soil material on the mountain slope makes this area highly susceptible to land slides; therefore, rock climbing or even hiking in this area is extremely hazardous. Less than 25 percent of the WSA has sufficient topographic screening to enhance opportunities for solitude. Most of the vegetative screening is located around the two lakes in the south end and along the four drainages in the central and northern portions. The vegetative cover on the slopes and ridges is sparse and consists of conifer trees and a low brush understory. Opportunities for a visitor to find a secluded spot are limited to less than 25 percent of the area. The steepness and corresponding

openness of the majority of the area foster a feeling of exposure, rather than one of seclusion in the northern two-thirds of the WSA. The sights and sounds of vehicular traffic on the county road and farm machinery activity on the agricultural lands in the valley bottom, limits solitude to seasonal periods of inactivity such as in the fall and winter months. The sights and sounds of the heavy recreational use at Chopaka Lake and the adjacent campground during the hunting and fishing season limit the opportunities for solitude on the southern third of the study area.

The area provides good, but not outstanding, opportunities for hunting, day hiking, and backpacking. Chopaka Lake which is located outside of the WSA, is noted for its outstanding fly fishing, but the fishing is not a wilderness type of experience because of the considerable vehicle use on lands outside the WSA. The steep and difficult terrain limit opportunities for hunting. The area's narrow width and steep terrain also would restrict opportunities for day hiking and backpacking. The easterly exposure and steep terrain provide opportunities for sightseeing on most of the WSA. Excellent opportunities for sightseeing are limited to the ridge line east of Bowers Lake.

Special Features

Section 2(c) of the Wilderness Act states that a wilderness area "... may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." The presence and quality of such special features contribute to the value of an area as wilderness.

The Chopaka Mountain WSA's special features include populations of mountain goats and white-tailed ptarmigan, a whitebark pine/subalpine fir plant community that contains a concentration of state-listed plant species, and old cabins which may have some historical value. The goat population is noteworthy because it is of special interest to the general public for sightseeing and hunting purposes. Since 1980, hunter interest in the goat herd has grown as indicated by the fact that the Department of Game received 247 applications for the five available permits. It is also of value to the sightseeing public for the esthetic pleasures derived from viewing the herd on the mountain slopes from the county road and the highway in the Similkameen River Valley.

Summary of Wilderness Quality

Although the area meets the minimum standards for identification as a wilderness study area, its overall

wilderness quality is relatively low. It is essentially natural, but opportunities for solitude are limited by the area's narrow width, steep terrain, aspect, relatively small size, limited screening, and the sights and sounds of activities outside the area. The area does not offer outstanding opportunities for primitive types of recreation.

Benefits to Other Multiple Resource Values

Because it would restrict surface-disturbing activities, wilderness designation could reduce the chances for excessive soil erosion in the steep drainages in the northern two-thirds of the area, protect state-listed plant species, and protect wildlife habitat. Prohibition of road construction would be particularly beneficial to the mountain goat populations. However, due to the area's susceptibility to land slides, any road construction is highly unlikely nor is there any planned in the area. The steep terrain would make road construction costly, but access roads might be constructed if mines are developed.

Diversity in the National Wilderness Preservation System

Designation of the Chopaka Mountain Area as wilderness would not significantly increase diversity in the National Wilderness Preservation System.

Wilderness designation is a means of preserving examples of the various ecosystems and landforms in the United States in an unimpaired condition for future generations. A system developed by Robert Bailey and A.W. Küchler has been used to identify the ecosystems and landforms already represented in the National Wilderness Preservation System and those which occur in potential additions to the wilderness system. Under the Bailey-Küchler system, the Chopaka Mountain WSA is located in the Pacific Forest Province, and the principal ecosystem is Douglas-fir forest. In the State of Washington, this combination of landform and ecosystem occurs on 200,000 acres in the Pasayten Wilderness 6 miles west of the study area, and on 28,200 acres in other areas designated wilderness. Designation of the 5,518 acres on Chopaka Mountain as wilderness would not materially increase the representation of this combination of landform and ecosystem in the wilderness system.

One of Congress's goals in previous wilderness designations has been to preserve wilderness near population centers. Chopaka Mountain is within a day's driving time of four major population centers:

Richland-Kennewick, Seattle-Tacoma-Everett, Spokane, and Yakima, Washington. All of these areas are Standard Metropolitan Statistical Areas with populations over 100,000. The data in Table 2 indicate that significant acreages of existing wilderness areas are located within a day's travel time of the four metropolitan areas.

Designation of the Chopaka Mountain Area also would not significantly affect the geographic distribution of wilderness in the state. Washington State contains 2,530,272 acres of designated wilderness, and approximately 1,606,000 acres of National Park land that have been recommended for wilderness designation by the President.

Manageability as Wilderness

The Chopaka Mountain WSA contains 95 acres of patented mining claims in the northern part of the area and 365 acres of unpatented mining claims in the southeastern part of the area. Activity on these would detract from the wilderness values of the surrounding area. The Ruby Mine, which is located in similar geologic setting on the boundary of the WSA, has been mined as recently as 1982 for gold and silver.

The state lands west of and on the upper slopes of the Chopaka Mountain-Hurley Peak ridge line adjacent to the WSA are managed by the DNR for their minerals and forest products. As development of these resources occurs, present levels of solitude and naturalness could not be maintained within the WSA. Similarly, the land south of the WSA and Chopaka Lake itself are also managed by the DNR. These lands and waters are adjacent to the one portion of the WSA that is the most readily accessible to recreationists. The established uses of these DNR lands include recreational sport fishing, hunting, trailer-type camping, livestock grazing, mining, and timber management. Since these activities occur periodically throughout the year, little can be done to mitigate the noise and visual effects associated with them. Consequently, it would be difficult to ensure solitude within the one portion of the WSA that is readily accessible to the general public.

Table 2. Existing and Potential Wilderness Within One Day's Driving Time of Four Major Population Centers in Washington

	Existing Wilderness (acres)	Endorsed for Wilderness by President (acres)
Richland-Kennewick	3,852,376	745,120
Seattle-Tacoma-Everett	2,587,743	1,606,299
Spokane	2,635,965	747,820
Yakima	4,056,314	1,608,999

Chapter 5

Environmental Consequences

Introduction

This chapter describes and analyzes the probable environmental impacts of the alternatives. The analysis is designed to be commensurate with the expected magnitude, intensity, duration, and incidence of impacts.

Wilderness designation (Alternative 1) would not create an irreversible or irretrievable commitment of resources in the area. It would restrict or preclude development of some resources, such as minerals and timber. However, Congress could revoke or modify the designation, if it determined resources in the area should be developed.

The analyses of the long-term impacts of wilderness designation are based on BLM's Wilderness Management Policy. The analyses of the short-term impacts of Alternative 2 are based on management options included in the Upper Columbia Management Framework Plan and the Plan Amendment now under consideration. The analysis of Alternative 3 is based on management options in the Upper Columbia Management Framework Plan as prepared in 1980.

Geology, Climate, and Cultural Resources

Geology, climate, and cultural resources would not be affected by any of the alternatives and will not be addressed further.

Air Quality

The BLM Wilderness Management Policy states that wilderness areas will be managed to meet the Class II Air Quality Standard.

There are no known existing or proposed activities which would be precluded or constrained, by the management of a Chopaka Mountain Wilderness, to meet the Class II air quality standards.

Under Alternatives 2 and 3, prescribed burning for wildlife habitat improvement would cause small short-term increases in particulate levels. These particulate levels would be insignificant.

Wilderness Values

Under Alternative 1, wilderness designation would provide a significant degree of protection for the wilderness values of the 5,518 acres in the WSA. The area's principal wilderness value is its naturalness. It is essentially free of the works of humans; and wilderness designation would provide considerable assurance that the area's natural character would be preserved. The principal threat to the area's naturalness under this alternative would be the possibility of mining on claims to which valid rights had been established by the time the area was designated and withdrawn from the general mining laws. It is not possible to estimate the likelihood of such an occurrence.

Under Alternative 2, wilderness values would be adversely affected by the goat habitat improvement project. Natural ecological processes would be disrupted by the periodic burning of three drainages in the northern part of the study area. For analysis purposes, it is assumed that each drainage would be burned about once every 20 years. Burning on such a cycle would maintain the vegetative community at an early seral stage and preclude succession to a climax stage.

The potential for impairment of wilderness values by mining activity would be greater under Alternative 2 than in Alternative 1 because all of the area would be open to mineral entry under the General Mining Laws. It is not possible to estimate the probable extent of mineral development, but the most likely locations may be in and around the private inholding in the north-central portion, and the mining claims in the southeastern part of the WSA. The area's naturalness could be impaired by the placement of tailing piles and the construction of roads and mine buildings. Opportunities for solitude could be impaired by the mining activities.

Under Alternative 3, the impacts on wilderness values would be the same as those in Alternative 2, except for the effects of the goat habitat improvement project and possibly the effects of mining. The prescribed burning project would disrupt natural ecological processes in the Anderson Creek drainage as well as in the three drainages which would be periodically burned in both Alternatives 2 and 3. Mining could have a greater effect on wilderness values under Alternative 3 than under Alternative 2 because under Alternative 3 mining operators would not have to consider impacts to the habitats of goats or sensitive plant species unless the area to be disturbed in a year would exceed 5 acres. Under Alternative 2, a Plan of Operation would have to be submitted and approved by BLM for all proposed mining operations within the ACEC.



View down Anderson Creek. Photo was taken approximately one-half mile outside the western boundary of the study area.

Mineral Exploration and Development

Under Alternative 1, mineral exploration and development would be affected in the following manner:

1. No new mining claims could be filed after the date of wilderness designation.
2. Existing claims within the wilderness that were valid as of the date of wilderness designation could be mined. For a claim to be considered valid, there would have to be evidence that the claim could produce sufficient ore for a prudent person to be willing to invest time and money to develop a paying mine. Before the surface of a valid claim was disturbed, a mining plan of operations would have to be submitted to, and be approved by, BLM. BLM could not restrict a mining operation on a valid claim to the extent that mining would not be economical. It is not known whether any of the unpatented mining claims in the WSA are valid.
3. Limited mineral exploration that which does not impair wilderness values could be conducted, but mining claims could not be filed and mineral rights—except those to valid claims existing at the date of designation—could not be patented.
4. Minerals could not be leased.
5. Wilderness designation would not affect mineral exploration and development in the private inholding.

From a minerals standpoint, the major impacts of wilderness designation would be to preclude possible development of mineral deposits that are currently uneconomical to mine, and to preclude active exploration for, and development of, unknown mineral resources. It is not possible to estimate the significance of possible mineral values that would be foregone if the area were designated wilderness. Currently there are no known economically recoverable mineral deposits in the study area. Geologists believe that economically

recoverable mineral reserves may exist and could be discovered if the area were not withdrawn from mineral entry.

Under Alternative 2, all of the WSA would remain open to mineral entry. This alternative would retain opportunities for mineral exploration, and the option for development of minerals in the event significant deposits are discovered. In the ACEC, a mining plan of operation would have to be submitted to, and be approved by, BLM before surface-disturbing operations could be undertaken. In the balance of the study area such a plan would be required only if the operations would cause a cumulative surface disturbance of more than 5 acres during a calendar year.

The consequences of Alternative 3 would be the same as those of Alternative 2, except that: a mining plan of operation would have to be submitted to, and be approved by, BLM only if the operations would cause a cumulative surface disturbance of more than 5 acres during a calendar year on any part of the area.

Soils

Under Alternative 1, impacts on soils would be limited to those resulting from any mining which might occur on mining claims to which valid rights had been established by the time the area was designated wilderness. Since past mining has not caused serious erosion problems, no significant impacts are expected. Aside from grazing livestock, which would cause minimal impacts relative to soil erosion in this area, no other human-initiated activities that would affect the soil resource would occur under this alternative.

Under Alternative 2, the action which would be most certain to affect soils would be the prescribed burning for mountain goat habitat improvement. Burning the three drainages could increase soil erosion rates by 3 to 4 tons per acre over estimated current levels of 5 tons per acre (the normal rate for this type of site in eastern Washington) for a period of 2 to 5 years after each burn. Prescribed burning would also increase the likelihood of small isolated mud slides. These mass wasting episodes would be confined to the drainages on the public land.

Mining could occur anywhere in the area, but most likely would consist of underground or shaft mining and be limited to the lower foot and toe slopes of the mountain and in and around the existing mining claims. Soil erosion would occur from the potential access roads to the mining claims. Since soil erosion associated with this type of mining on adjacent claims in the past has not caused any

serious erosion problems, no significant impacts are anticipated.

The harvesting of timber from the identified areas (including temporary roads) is not expected to result in any serious soil erosion problems. The commercial timber is located on areas that have gentle slopes ranging from 20 to 35 percent and soil erosion in these areas would be localized and confined to the immediate area of disturbance. In addition, no clearcutting would be permitted, and no permanent road would be constructed; consequently, no significant impacts are anticipated.

Impacts of Alternative 3 would be similar to those identified for Alternative 2 except for the following: Additional soil erosion could be expected to occur because the Anderson Creek drainage would be included in the prescribed burn; and mining impacts might be somewhat greater because mining activities involving less than 5 acres per year would not require a Plan of Operation. This difference should not result in any major impacts. Also, an additional 165 acres of forest land would be subjected to the impacts of timber harvest operations.

Cumulatively, if all of the identified activities occurred simultaneously, no serious erosion problems would result. Design features (seedings, mulching, buffer zones, etc.) built into the respective projects would be required to ameliorate the anticipated effects of the proposed activity, and the projects would be dispersed over a wide area.

Water Resources

Under Alternative 1, watershed conditions would be similar to those existing today. Water quality and water yield would not be affected. Except for minor decreases in water quality which might result if mining occurred on mining claims for which valid rights were established by the time the area was designated wilderness.

Under Alternative 2, increases in water yield and sedimentation would occur as a result of prescribed burning. The annual water yield from the burned area would be expected to increase from 15 to 20 percent for a period of 2 to 5 years after each burn. However, recent studies have indicated that increases in peak flows would not occur.

Possible timber harvesting operations would not cause any measurable impact to water quality nor would it be expected to significantly affect water quantity.

During peak flows there would be a minor increase in suspended sediment in the streams, but the increase would not be great enough to cause a change in the stream's water quality rating.

With one possible exception, the other multiple use practices which could occur under this alternative would cause only limited surface disturbances and would lead to little, if any, change in the water resources of the area on or off site. The exception could be mining. If mining did occur, the surface disturbance could decrease water quality. However, disturbances related to existing mines located adjacent to the WSA (i.e. Ruby, Sheep, and Golden Zone mines) have not caused any significant water quality problems.

The impacts under Alternative 3, would be similar to those described for Alternative 2. The impacts of burning in Anderson Creek would be similar in intensity and effect to those described for burning under Alternative 2.

The cumulative effects on water resources caused by all activities under Alternatives 2 or 3 are expected to be insignificant both on and off site. This analysis is based on the physical nature of the streams, the magnitude of the anticipated impacts from the potential activities, and the fact that these streams constitute a minute portion of the Similkameen River watershed.

Vegetation

Under Alternative 1, vegetation could continue to move toward a climax stage. However, this could be affected by lightning fires, and by mining activity on valid mining claims within the WSA.

Under Alternative 2, the periodic burning of three drainages on a somewhat regular basis would result in the restoration of early successional stages, instead of the mature forest cover which could be maintained under Alternative 1 in portions of the three drainages. The vegetative composition in the drainages would be brush and grass fields with scattered young trees. The burns would not result in the permanent loss of most plant species in the drainages. The effect that burning would have on the eight known state-listed plant species would be minimal since the Anderson Creek drainage contains the major concentrations of these plants and it would not be burned.

In Alternative 3, the impacts would be similar to those described in Alternative 2, except that the burning of the Anderson Creek drainage would result in 490 acres of the 520-acre whitebark pine/subalpine fir plant community being set back to an earlier seral stage. The burning of this

community would not result in the loss of the plant cell from the region; it occurs in other areas of the WSA and adjacent land. State-listed species found in this habitat type could be affected; however, the extent of the impact on the plant populations in the drainage is unknown. Sensitive species habitat could be inadvertently affected by mining activities because the area would not be under ACEC designation. Without this designation areas up to 5 acres in size could be disturbed before BLM must be notified. Consequently, some sensitive species habitat could be disturbed, if not lost, under this alternative.

The effects of harvesting an additional 165 acres of timber would be insignificant.

The cumulative impacts of all activities under this alternative, including burning, harvesting of timber in small patches, and mining are expected to be minor.

Wildlife

Under Alternative 1, the habitat for most wildlife species would remain in current conditions except for the mountain goat habitat. The size of the mountain goat herd would decline because plant succession would continue toward climax. Since mountain goats prefer a grass and brush plant community over the forest community which would develop as the vegetation reached a climax stage, their numbers would gradually decline.

As succession proceeded and mountain goat use of Chopaka Mountain declined, monitoring activities such as census and tagging would become more difficult because it would be more difficult to see the goats. The cost of obtaining annual data could become prohibitive; if this happened, management of the goat herd necessarily would become more subjective.

Under Alternative 2, the populations of most species would remain at approximately their current levels. The mountain goats would be an exception. Approximately 1,050 acres of preferred mountain goat winter range would be improved by prescribed burning. As a result, the goat population could increase up to a level of about 200 animals.

Plant succession in the Anderson Creek drainage would continue toward a climax stage, and result in a continued decline in quality of this portion of the preferred winter range for the goats. Mountain goat use in Anderson Creek would decline.

The effects of Alternative 3 would be similar to those described for Alternative 2, with the exception of the effects of burning in the Anderson

Creek drainage. Approximately 1,540 acres of mountain goat winter range would be improved, compared to 1,050 acres for Alternative 2. As a result, the goat population could increase to 250 to 300 animals.

The total area of habitat which could be altered by the proposed burning would affect 35 percent of the WSA. However, since burning would be accomplished in small stages over a 20-year period and since timber harvesting would occur in small scattered stands, the overall cumulative impacts would be relatively minor, except for the substantial potential benefits to mountain goats. Mining, as regulated by the 43 CFR 3809 regulations, would have little effect on wildlife.

Visual Resources

Under Alternative 1, the area's scenic quality would remain unchanged, unless significant mining occurred on valid mining claims within the WSA.

With Alternative 2, the unit would be managed so that the contrast resulting from any development activity could be seen but not attract attention. The area's scenic quality would remain unchanged unless significant mining and associated road development were to occur.

In Alternative 3, the area would be managed so that the visual contrasts created by development activities would be allowed to be evident, but still remain subordinate to the existing landscape. Impacts would be similar to those for Alternative 2.

Recreation

Management of this area as wilderness would preserve opportunities for primitive and unconfined forms of recreation within the WSA. Wilderness designation could lead to an increase in use of the area for primitive recreation activities, but it is not possible to project how much the use might change.

Most of the recreationists who come to the WSA come to fish in Chopaka Lake or hunt. Approximately half of the lake lies outside the study area, so wilderness designation would have only a limited effect on the character of recreation opportunities on and around the lake. Because of the area's limited size, it does not offer a wilderness type of hunting experience.

If the area were designated wilderness, recreational use would not be expected to change significantly since most recreationists who visit the area come to hunt, fish, and camp around Chopaka Lake.

Under Alternatives 2 and 3, recreation opportunities would remain essentially unchanged. As the demand for general recreation increases, recreation use of the WSA is expected to increase proportionately. The number of goat hunting permits might be increased as the goat population increased, but there is no assurance that would be the case. If mineral deposits were discovered and mined in the area, the surface disturbance and mining activity could detract from the quality of the recreation opportunities.

Grazing

Grazing operations within the WSA would not be significantly affected by wilderness management. One livestock permittee's present use of vehicles in the area to manage livestock might be restricted, but it would not significantly affect grazing operations. The other permittees do not use motorized vehicles in the area to manage their livestock.

There essentially would be no change in livestock operations if either Alternative 2 or 3 were implemented. The prescribed burning would result in a temporary loss of 2 to 3 animal unit months for 1 to 2 years. After that period, the range condition would be expected to improve over the present situation.

Timber Management

Under Alternative 1, management would be directed toward natural ecological succession except under emergency situations as described in the Wilderness Management Policy. No timber would be harvested. This would reduce the district's annual allowable timber harvest base by 35,000 board feet.

Under Alternative 2, 220 acres would remain in the district's allowable timber harvest base, and under Alternative 3, 385 acres would remain in the district's allowable timber harvest base (Map 4). The net exclusion of 165 acres of commercial forest land from the timber harvest base would decrease the district's annual allowable cut by 15,000 board feet.

Economic Conditions

Any of the alternatives would only cause minor changes in current economic conditions.

No mining is occurring in the area at present. If minerals were developed in the future under Alternatives 2 or 3, economic values and local personal income could be increased. However, it is

not possible to estimate the potential significance of such changes. Alternatives 2 and 3 would retain current opportunities to explore for and develop any mineral resources which might exist in the area. Alternative 1 would limit such opportunities to claims valid at the time of designation as long as the wilderness designation was retained.

Alternative 1 would not result in any significant impacts to the four livestock grazing lessees.

Timber harvest would be precluded under Alternative 1 and permitted under Alternatives 2 and 3. Annual economic value would be decreased by an average of \$1,050 under Alternative 1 and \$450 under Alternative 2. The total local personal income would be decreased by an average of \$9,368 per year under Alternative 1, \$4,015 under Alternative 2, and no decrease under Alternative 3.

Designation of the area as wilderness could cause an increase in primitive types of recreation activities, but the approximate increase is unknown.

Possible economic effects of the alternatives are listed in Table 3.

Social Conditions

Impacts on social conditions occur when a land use decision affects people's economic opportunities, their access to resources they have traditionally used, or the protection afforded resources they value. Social effects may also occur when people perceive a threat, loss, opportunity or benefit, regardless of the likelihood of occurrence. These impacts could be significant when they result in interpersonal or intergroup conflict, disrupt the social cohesion of a community, or when a particular individual or group benefits or suffers inordinately as a result of BLM's decision.

No significant impacts on social conditions have been identified or are anticipated under any of the alternatives considered in this EA. This is largely because the study area is small and the values that would be affected by any of the alternatives are only a small portion of similar values in the potential social impact area.

There are no known Native American lands, resources, or values that would be affected by the land use alternatives.

Table 3. Economic Effects of Alternatives (1981 price levels)

Expected Economic Effects	Alternative 1 All Wilderness	Alternative 2 No Wilderness	Alternative 3 No Action
Mining			
a) Change in revenues	0	0	0
b) Change in local personal income	0	0	0
Livestock Grazing			
Present AUMs: 455			
a) Change in AUMs	0	0	0
b) Change in economic value	0	0	0
c) Change in local personal income	0	0	0
Timber Harvest			
Potential annual harvest: 35 mbf			
a) Change in harvest	-35 mbf	-15 mbf	0
b) Change in economic value	-\$1,050	-\$450	0
c) Change in local personal income	-\$9,368	-\$4,015	0
Total Changes			
a) Change in economic value	-\$1,050	-\$450	0
b) Change in local personal income	-\$9,368	-\$4,015	0

Chapter 6

Coordination, Consistency, And Public Participation

Coordination Prior to Preparation of the Plan Amendment and Environmental Assessment

Prior to the preparation of this Plan Amendment and EA, the Spokane District consulted and coordinated planning efforts with the public during the Management Framework Plan (MFP) process and the inventory phase of the Bureau's wilderness review program. These early efforts were widely advertised in an attempt to reach affected publics. The Spokane District's advisory council was consulted about the MFP and Wilderness review. Local governments and state and federal agencies also were contacted during these phases.

As part of this consultation and coordination process, public planning workshops were held to identify potentially significant problems and issues to be addressed during the planning. These workshops were conducted in Spokane and Okanogan, Washington.

On January 27, 1982, an open house was held in the Spokane District Office to gather input concerning the District's wilderness studies. This effort provided information which helped identify potential issues and public concerns.

Consistency With Other Resource Plans

All BLM planning and major actions are coordinated with affected federal and Washington State agencies. BLM planning is also coordinated with county land use plans.

Consultation with other government agencies indicates that the preferred alternative, No Wilderness Alternative (Alternative 2), and the No Action Alternative (Alternative 3), are consistent with their officially approved or adopted resource related plans. Wilderness designation could indirectly conflict with management of the DNR lands, but does not contradict any approved plans. The DNR has expressed concern over the possibility that Chopaka Mountain might be designated a wilderness area. The DNR has plans for a wide variety of activities on the state trust lands located between the study area and the

Pasayten Wilderness. These activities include, but are not limited to, timber sales, timber stand improvement, reforestation, mineral extraction, recreation, fire control, and insect and disease control. Some of these activities are occurring at the present time and will continue indefinitely. If the study area is designated wilderness, the trust lands would be located between two wilderness areas only 6 miles apart. The DNR is concerned that people may work to include the state lands in a wilderness area with a resulting loss in school revenue. The DNR believes this would not be in the State's best interest.

There are no known conflicts with Indian tribal lands, resources, or values, which are to be protected under the Native American Religious Freedoms Act or any treaties covering ceded lands.

Chapter 7

Response to Public Comments

A draft of this document was made available to the general public for review from mid December through the end of February. During that time two public hearings were conducted. One was held in Okanogan, Washington, on January 26, and the other was held in Spokane on January 27, 1983. A total of eight people gave oral statements which were recorded in the hearing transcripts. Six supported wilderness designation and two supported the No Wilderness Alternative. Another 51 written comments on the study were received during the official comment period, which ended on February 28, 1983. Of the 51 comment letters received, 28 preferred Alternative 1, 12 preferred Alternative 2, one preferred Alternative 3, one indicated a preference for Alternatives 2 or 3, and 9 had no preference.

Comments received were from both individuals and organizations. In many cases, a single response would speak to a number of different subjects. Consequently, rather than deal with each response as a separate entity, responses were separated and summarized under a variety of different subject headings, such as wildlife, water quality, and minerals. A list of the respondents and responses to their comments follows.

List of Respondents

Agency, Organization or Individual

1. Linda Mycek
2. Arthur M. Waugh
3. Minerals Exploration Coalition
4. Leonard Weldeman, M.D.
5. Walter A. Hart, Jr.
6. Ephrata Sportsmen Association
7. USDI, Fish and Wildlife Service
8. USDI, National Park Service
9. Mike Kruth
10. Muriel L. Ainsworth
11. Warren Fetter
12. Ethel W. Thorniley & 13 others
13. USDA, Forest Service, Okanogan NF
14. Okanogan County Cattlemen's Assoc.
15. Penelope B. Wooten
16. Federation of Western Outdoor Clubs
17. Thomas H. Rogers
18. John R. Swanson
19. Lee Miller
20. Sara Williams
21. Jerry Barnes
22. Jim Barnes

23. Mike Colavito
24. Joseph Schuster
25. Palmer Smith
26. Meridian Land and Mineral Company
27. Anonymous Letter
28. Susan L. Marsh
29. E. Zahn
30. Rick Leaumont
31. John B. Sutherland
32. Irene Bachhuber
33. Nancy Ellison
34. The Wilderness Society
35. Sherri Robinson
36. Washington Wilderness Coalition
37. Janet A. Thompson
38. Richard Rutz
39. Xana Moore
40. Clark Chambers
41. Olive Lester
42. Isabelle Spohn
43. U.S. Environmental Protection Agency, Region X
44. USDI, National Park Service
45. Washington State Department of Transportation
46. Washington State Parks and Recreation Commission
47. Washington State Department of Fisheries
48. Unsigned
49. Gilbert Turner
50. Harvey Manning
51. Susan Morrison
52. H—Morey Haggin
53. H—Bill Arthur
54. H—Dave Gaarder
55. H—Sam Angove
56. H—Tom May
57. H—Pete Wyman
58. H—Jim Barnes
59. H—Bert Jellison

H—Testimony given at public hearings.

Summary of Comments and Responses

Water Resources

1. Comment—The impact documentation, pertaining to land management activities (i.e., mining, prescribed burning, and timber harvesting) with their relationship to sedimentation of the Similkameen River, was not adequately treated.

Response—Text amended to include this information. See Chapter 3 and 5, Water Resources.

2. Comment—There is no discussion of the water pollution that could result from mining.

Response—Text has been amended. See Chapter 5, Water Resources.

3. Comment—What is the water quality now, and what will it be during periods of high runoff?

Response—The Washington State Department of Ecology classifies the water quality as being Class A. No change in classification is anticipated during the periods of high runoff.

Grazing Management

1. Comment—The possibility of grazing conflicts between cattle and big game (i.e., mule deer and mountain goats) should be investigated.

Response—In 1972, study plots were established in Section 20 of the WSA that related to this question. No significant grazing conflicts were identified on BLM lands.

The major grazing conflicts were identified on lower elevation private land.

2. Comment—Alpine meadow habitat improvement could possibly be achieved through a reduction in overall grazing pressure and/or strict enforcement of grazing off dates during fall and winter months.

Response—Agreed. However, there are no alpine meadows in the WSA, and there is no livestock grazing at higher elevations.

3. Comment—How much cattle forage is considered to be a significant loss?

Response—A loss that would cause economic hardship for the grazing lessee. No lessee in the unit is presently economically dependent on a BLM lease.

4. Comment—Will there be a loss of cattle?

Response—None anticipated.

5. Comment—How much cattle forage would be lost due to periodic flooding?

Response—The maximum loss of forage would be less than an acre on BLM land. However, this loss would be temporary and would be expected to be replaced the next growing season.

Wilderness

1. Comment—The fact that Chopaka Mt. was one of the few areas of BLM-managed lands to reach wilderness study status shows it has a good wilderness potential.

Response—The fact that an area is a wilderness study area does not necessarily mean it has good wilderness potential. It means the area meets the minimum requirements necessary for further wilderness study.

2. Comment—The EA does not present any data to support the contention that the area will not increase the diversity of the wilderness system.

Response—See section entitled “Diversity in the National Wilderness Preservation System” in Chapter 4.

3. Comment—We are told in several places in the Environmental Assessment that the area offers good solitude; the wilderness is near pristine; there is great vegetative diversity due to the topographical relief; there are three archeological/historical sites (all worthy); the area offers good hunting and fishing; and then we are told (towards the end) that the wilderness quality is an overall low.

Response—There are several areas where a person could find solitude. However, as the study indicates, these areas are limited to less than 25 percent of the WSA. Likewise, those places that are generally natural are confined to the northern two-thirds of the study area. The fact that diverse plant communities, archeological/historical sites, and hunting and fishing opportunities exist in the WSA is not enough justification, in and of itself, to recommend an area as wilderness. See Chapter 4 for the evaluation of wilderness values.

4. Comment—The alternative of partial wilderness designation is mentioned, but not really discussed. This is unfortunate because designating a portion of the area as wilderness, with realistic topographic boundaries instead of section lines, would provide the desired protection to key areas, superior to that afforded by an Area of Critical Environmental Concern (ACEC) or by a Research Natural Area (RNA).

Response—The partial wilderness alternative was considered early in the wilderness study process. However, when the areas that contained potential conflicting uses (i.e., the proposed burn areas, the timber harvest areas, and unpatented mining claims) were deleted from the WSA, the public land that remained (2,700 acres) lacked the size and values that would be necessary for wilderness

consideration. The RNA was dropped from consideration. See Response to Comment No. 1 under Minerals Management, below.

5. Comment—In reference to noise factors, Great Northern (railroad) has a track that runs down the west side of the Similkameen River Valley, immediately outside the east boundary of the WSA. No mention is made of this nor of how much use this track gets.

Response—This railroad line was a port of entry between the United States and Canada. However, it no longer serves this purpose. It has been disconnected at the border and is now classified as an inactive spur.

6. Comment—It should be made clear in the discussion of alternatives that only under wilderness designation are the botanical features of this area protected from mining activities.

Response—Previous mining activities were carried out underground with very little surface disturbance. Current information indicates that this is the type of mining activity that can be expected in the future.

Within the proposed ACEC, an approved plan of operations would be required prior to any mining activity. This process would provide an opportunity for protection of sensitive botanical features.

7. Comment—I really believe that a wilderness designation Alternative 1 would lead to more publicity, use, and negative impact on the environment of the study area than the preferred Alternative 2 or no action Alternative 3.

Response—No significant change of use is expected to occur in the northern two-thirds of the WSA. However, it is possible that the use could increase on the southern end around Bowers and Chopaka Lakes. However, BLM's Wilderness Management Policy provides that use will be controlled before wilderness values are impaired.

8. Comment—Mentioned as another area of concern is the impact of wilderness designation on adjacent school revenue lands. Probable and/or possible impacts remain unexplicated. How might these lands be impacted?

Response—See Chapter 6, Consistency With Other Resource Plans.

9. Comment—An Environmental Impact Statement is needed to more thoroughly evaluate this area which is the lone BLM wilderness study area in the state of Washington.

Response—The National Environmental Policy Act and Council on Environmental Quality regulations require that an environmental impact statement be prepared if a proposed action would cause significant environmental impacts. No significant impacts were identified during the course of the environmental assessment. In addition, the level of analysis and documentation conducted for an environmental impact statement for this wilderness study area would be similar to the intensity of the analysis that was conducted and documented in this environmental assessment. It is true that this is the lone BLM wilderness study area in the state of Washington. However, it is not the only existing or potential wilderness area in the State.

10. Comment—There is no discussion of the positive aspects of wilderness designation for the acknowledged wilderness values, including the prevention of soil erosion and preservation of water quality.

Response—See the "Benefits to Other Multiple Resource Values" section in Chapter 4 and the "Soils" and "Water Resources" sections in Chapter 5.

11. Comment—Wouldn't wilderness designation result in protecting the area from destruction from off-road vehicles?

Response—Except for the portion of the study area in the immediate vicinity of Chopaka and Bowers Lakes, the area is physically unsuited for off-road vehicle use. The terrain is too steep and rocky for any vehicles. There has been no ORV problem in the area around the lakes.

Fire Management

1. Comment—While burning for the benefit of a species, if not rare or endangered, is prohibited in a designated wilderness, burning "to maintain the natural conditions of a fire-dependent ecosystem or to reintroduce fire where past strict wildfire control measures have interfered with natural ecological process" is permitted.

Responses—BLM studies indicate that the Chopaka Mountain WSA does not contain a fire-dependent ecosystem. In addition, the frequency of the proposed burnings would be much more than has occurred historically. Therefore, it is BLM's opinion that these "mountain goat-oriented" burnings would be in direct conflict with the wilderness management policy.

2. Comment—It is unclear how the natural storm pattern and frequency of lightning-ignited fires interact with preferred goat feeding habitat. The

present management would appear to be in conflict with increasing the goat herd population.

Response—To the District's knowledge, there have not been any fires (lightning-ignited or otherwise) since the 1929 fire that burned through a major portion of the mountain. The interrelationship of fire and feeding habitat is this: The fire that burned the mountain in 1929 changed the vegetative community from an advanced, tree-dominated community to an earlier seral stage dominated by shrubs, grasses, and forbs. This earlier seral stage provided better feeding habitat than was present prior to the fire. As a result, the goat herd flourished.

3. Comment—How much do we need a rotational (prescribed) burning program?

Response—The need for the proposed burns is related to a desire to increase mountain goat feeding habitat. It is assumed that the goat herd would increase in size as a result, thus increasing the hunting opportunities for the general public.

4. Comment—Under wilderness designation, perhaps, the goat population would decline, and the BLM burning of three watersheds (in order to enhance the goat population) might just possibly be of benefit. But, are there any studies out concerning the frequency and damage that is done by lightning?

Response—There are no studies of lightning-caused fires on Chopaka Mountain. See response to preceding comment No. 2.

Minerals Management

1. Comment—No mention is made of whether the RNA would be withdrawn from mineral entry. Would the area be withdrawn?

Response—The RNA proposal, which was included in the draft EA, was dropped because further investigations on the sensitive nature of this area revealed that the most important habitat for the sensitive plant species is located on the adjoining state land. In addition, the proposed ACEC designation, which overlaps this area, is believed to afford adequate protection. This area would not be withdrawn from mineral entry. However, prior to conducting any mining activity, a plan of operation would have to be prepared by the applicant, which would entail an environmental review and require incorporation of mitigative measures to lessen the impacts on the botanical resources.

2. Comment—If indeed the copper anomalies around Chopaka Lake were extensive enough to be developed, wouldn't this destroy the lake for the

fishing and hiking and general public use now enjoyed?

Response—It is not likely that this would occur. The mining claims, where these anomalies were observed, are located approximately one-half mile west of the lake. In addition to this, state and federal regulations would prohibit degradation of the existing water quality of the lake or any other water body.

3. Comment—I don't really feel the existing level of minerals inventory should be any reason for excluding this area as wilderness. It is too incomplete, too small an area has been sampled, and the result of a mining venture would be disastrous to the area. Nowhere are we informed of the economic viability of extracting these resources.

Response—There were three reasons for not recommending this area as wilderness: (1) need to keep the area open for mineral exploration and development; (2) need to improve the mountain goat habitat; and (3) recognition of its limited wilderness value.

The minerals located in the WSA are classified as being subeconomic. Under the current economic conditions, exploration for and development of minerals known or believed to exist in the WSA would not be an attractive investment.

4. Comment—I would like to know how you reached the conclusion that mining might occur in the future? The amount of inaccessibility for exploration should be quantified.

Response—At the present time, the world base price for metals is depressed; however, these prices could rapidly change. If this occurred, it could become economically feasible to develop claims containing minerals that are now "subeconomic".

5. Comment—The nature of the terrain suggests that a cable haul way would be a much preferable method of extracting the mineral, rather than cutting a road up the whole mountainside.

Response—This would be an alternative method of retrieval, as well as the use of conveyor belts or shaft mining, but, to date, there have been no proposals for this, or any other, type of mineral extraction in the WSA.

6. Comment—I don't know how sensitive the goats are to human intrusion, but it seems that if oil and gas exploration crews operate in the area, that may disturb the goats. Also, if a discovery is made, habitat destruction and further intrusion could result. What stipulations apply for exploration? Do

you have a plan to mitigate the possible conflicts between oil and gas exploration in your current management direction for the area?

Response—No applications for oil and gas leases have been received; no leases have been issued; and there is no specific plan to mitigate possible conflicts. The potential for oil and gas discovery in the WSA appears to be low.

7. Comment—Does not the test of a valid claim rest on its economic viability?

Response—Primarily, the validity of a claim does rest on economics. However, there are other factors to be considered. See comment No. 4 above and the "Mineral Exploration and Development" section in Chapter 5.

Forest Management

1. Comment—What is the impact significance to wildlife winter range, sensitive plant communities, etc., relative to timber management activities?

Response—The forested areas do not contain any "sensitive" plant communities, and the wildlife winter range that exists there is expected to improve if the timber is harvested. Therefore, no major or significant negative impacts to wildlife are anticipated.

2. Comment—What percentage of the total revenue, received from timber harvest activities, comes from Chopaka Mountain, and how would it's elimination affect the area's total economy?

Response—At present, no revenue is realized from forest products in the Chopaka Mountain WSA. See the "Economic Conditions" sections in Chapters 3 and 5 for additional information.

3. Comment—There were no maps which provided information as to where the harvestable timber was located.

Response—See Map 3.

4. Comment—The explanation that the effects of logging are dealt with in another study (i.e., the BLM's Final Environmental Impact Statement) is no reason to exclude that information from the environmental assessment.

Response—If a timber sale were to take place, a site-specific environmental assessment would be prepared to analyze the effect of the proposal.

Wildlife Habitat

1. Comment—The assessment for wildlife-related impacts is based solely on mountain goat management practices. Non-game and fur-bearing mammals, waterfowl, raptors, fisheries, etc., receive little or no attention with regard to the non-wilderness proposed uses.

Response—Not much attention was devoted to these animals because no sensitive habitats for these species are known to occur in the WSA. Except for mountain goat habitat neither of the alternatives propose activities that would substantially alter or change the habitats for the species you have indicated.

2. Comment—How will the great gray owl, western bluebird, golden eagle, and white-tailed ptarmigan be impacted from the proposed uses?

Response—The steep and rocky areas are not the normal habitat of the great gray owl and western bluebird, and they are not known to utilize the WSA. The other species are not expected to be significantly affected by any of the alternatives.

3. Comment—What is the significance of the mountain goat population, and just how much goat habitat manipulation could/would be done, and how much would it cost? Can other populations be more effectively managed?

Response—The Washington State Department of Game considers this herd important because it is one of the few "native" mountain goat herds in the state. Most of the other herds were introduced. Local citizens consider this herd important because they can view the animals from the Similkameen River valley. This goat herd makes up about 1.2 percent of the total statewide population. A total of 1,050 acres in the WSA are proposed for habitat improvement. A cost analysis of this project has not been done. However, prescribed burning is the most economical method of vegetative control. A cost analysis will be part of a proposed burn plan, along with a site-specific environmental assessment of the action. The Department of Game feels that the herd can be one of the easiest to manage in the state because of its location and visibility, and because the mountain is readily accessible.

4. Comment—The concern for the goat population seems misplaced in any case. Hunting pressures have had as great or greater effect on the goat population levels...than did habitat changes caused by the successional advances of vegetation.

Response—The text has been amended to clarify the history of the goat herd. See the "Wildlife" section in Chapter 3.

5. Comment—What size goat herd are you trying to achieve?

Response—The target goat herd size is approximately 200 animals.

6. Comment—How can you protect the goat herd and vegetative community with an ACEC and RNA designation?

Response—The ACEC designation would require a review of all activities proposed in the ACEC area that would or could conflict with those areas designated critical for the mountain goats. See also response to comment No. 1, Minerals Management, concerning the RNA proposal that was included in the draft EA.

Recreation

1. Comment—The steepness and rugged nature of Chopaka Mountain means that the opportunities for "primitive and unconfined recreation" are excellent.

Response—The area does offer opportunities for backpacking, day hiking, and other types of primitive recreation activities. The opportunities are limited because the area's scenic and other features are not significant enough to compensate for the difficulty in hiking in the rugged terrain or the limitations imposed by the area's narrow width and relatively small size.

2. Comment—There should be a calculation of the loss to recreational quality that would occur in the area of Chopaka Lake and in the other adjacent areas if mining and logging occurred.

None of the alternatives would lead to logging around Chopaka Lake. The mining activity in the immediate vicinity of Chopaka Lake is minimal and is not expected to change. Even if mining did occur, the impacts relative to recreation would be minimal. See the answer to comment No. 2 under Minerals for additional information.

3. Comment—No mention is made of the attraction for bird watchers and rock climbers or of the great interest to botanists because of the acknowledged rare plant communities.

Response—The recreationists attracted to any area have diverse interests. Those activities, which are most prevalent in the WSA, were noted. Since there would be little effect from any of the alternatives on the recreational opportunities for bird watchers, rock climbers, or botanists, discussion of these activities in this environmental assessment was not considered necessary.

4. Comment—The EIS should display recreational carrying capacity for each WSA.

Response—There are no established formulas for calculating the human carrying capacity for a wilderness area where recreational use is not practically limited to established trails or campgrounds.

5. Comment—Will public access for recreational purposes be restricted in the area?

Response—Public access would not be restricted under any of the alternatives.

Economic Conditions

1. Comment—Not mentioned are the benefits of wilderness designation: the economic and recreational benefits derived as a result of those who would visit the area and use it as wilderness.

Response—See the last paragraph in the "Economic Conditions" section in Chapter 5.

2. Comment—In the Chopaka area, the BLM ascribed a dollar value to a wilderness recreation visitor day. The figure used was \$7.09 (a U.S. Forest Service figure). I do not feel that this value is in any way realistic or fair.

Response—The net economic value, employed in the analysis of existing recreation use, is based on the best information available, representing the entire spectrum of general recreation visitors. Individuals do indeed place higher and lower values on such recreation opportunities.

Chapter 8 List of Preparers

District Office Personnel

Pamela Camp—Botanist
William Carleton—Fire Management Officer
Dean Crandell—Geologist
Ralph Cornwall—Forester
James Farrell—Wildlife Biologist
Richard Hubbard—Range Conservationist
Neal Hedges—Wildlife Biologist
Willard Kempe—Planning Coordinator
Jim Fisher—Area Manager
Albert Martin—Chief, Division of Resource Management
Joseph Randolph—Archeologist
Mark St. John—Public Affairs Specialist
Scott Whittaker—Soil Scientist
Stanton Wilkerson—Public Affairs Specialist
Gary Yeager—Environmental Coordinator, Team Leader
Jack Zwiesler—Forester

Oregon State Office Personnel

Daniel Bowman—Social Scientist
L. D. Hamilton—Writer/Editor (Final EA)
Ken White—Outdoor Recreation Planner (Final EA)
Hans Radtke—Economist
Stan Detering—Economist
Eric Stone—Planning Coordinator

Chapter 9

List of Officials, Agencies, And Organizations to Whom Copies of the Environmental Assessment Have Been Sent

Governmental Agencies

Federal

U.S. Bureau of Indian Affairs
U.S. Environmental Protection Agency
U.S. Department of Energy
U.S. Fish and Wildlife Service
U.S. National Park Service
U.S. Forest Service
U.S. Soil Conservation Service
U.S. Bureau of Mines
U.S. Geological Survey
U.S. Bureau of Reclamation

State

Office of the Governor
Office of the Secretary of State
Washington State Library
Washington State Conservation Commission
Washington State Superintendent of Public
Instruction
Washington State Department of Natural
Resources
Washington State Parks and Recreation
Commission
Washington State Treasurer
Washington State Department of Ecology
Washington State Department of Agriculture
Washington State Department of Game
Washington State Department of Fisheries
Washington State Farm Bureau
Washington State Division of Geology and
Earth Resources
Washington State Department of Transportation
Washington State Commissioner of Public Lands

County

Washington Association of Counties
Okanogan County Planning Department
Okanogan County Assessor

Congressional

U.S. Senator Daniel J. Evans
U.S. Senator Slade Gorton
U.S. Representative Thomas Foley
U.S. Representative Sid Morrison
U.S. Representative Allan B. Swift
U.S. Representative Rod Chandler
U.S. Representative Norman D. Dicks
U.S. Representative Mike Lowry

State Legislature

Senator Alex Deccio
Senator Frank Hansen
Senator George Sellar
Senator Scott Barr
Representative Clyde Ballard
Representative Peter T. Brooks
Representative Richard Hastings

Canadian Agencies

Ministry of Forests, British Columbia

Groups and Organizations

Pacific Northwest 4-Wheel Drive Association
Terradata
U.S. Borax Company
Washington Cattlemen's Association
Pacific Northwest Trail Association
Northwest Pine Association
L. F. Baum and Associates
P & H Mining Company
Sierra Club
R & M Consultant Company
Minerals Exploration Coalition
Washington Natural Heritage Program
Washington Beef Commission
Chevron Resources Company
Hunt Oil Company
Continental Oil Company
Pacific Logging Congress
Orcas Conservancy
Cascadia Exploration Corporation
Gold Field Mining Corporation
The Anschultz Corporation
Minatome Corporation
NUS Corporation
Phillips Uranium Corporation
Washington Environmental Council
Homestake Mining Company
Dawn Mining Company
The Wilderness Society
Rocky Mountain Energy
Washington Wilderness Coalition
The Institute of Ecology
The Wilderness Group

Geothermal Resources International
Utah International, Incorporated
Public Lands Institute
Okanogan County Cattlemen
Union Oil Company
Friends of the San Juans
Puget Sound Power and Light
Oregon Natural Heritage Program
AMOCO Minerals Company
California Energy Company
Gulf Mineral Resources Company
Atlantic Richfield Company
Western Nuclear
The Mountaineers
Nature Conservancy
Peak Putters 4-Wheel Drive Club
Desert Rats
Belfair Packrat Search and Rescue
Water and Power Resources
Trails, Incorporated
Salisbury and Dietz, Incorporated
Century West Engineering Corporation
The Audubon Society
Oregon Historical Society
Lloyd Corporation
Thunder Trucks
League of Women Voters of Washington
Caveman 4-Wheel Drive Club
Timber Linn 4-Wheel Drive Club
Whatever 4-Wheel Drive Club
Cascade 4-Wheel Drive Club
Environmental Education Center
Colorado State University
Jones and Associates, Incorporated
University of Washington
University of Oregon
Eastern Washington University
Western Washington University
Washington State University

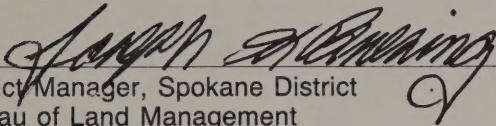
Individuals

In addition to these officials, agencies, and organizations, this EA has been sent to a total of 317 interested parties.

Finding of No Significant Impact For Chopaka Mountain Wilderness Study, Plan Amendment and Environmental Assessment

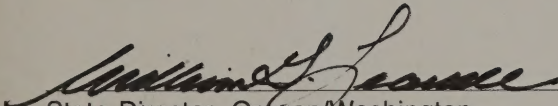
The Bureau of Land Management, Spokane District, has analyzed the alternatives for the Chopaka Mountain Wilderness Study Area and Management Framework Plan Amendment. Alternative 1-All Wilderness, Alternative 2-No Wilderness, and Alternative 3-No Action, are described in the attached Environmental Assessment (OR 130-02-35). The design features of the alternatives identified in the attached Environmental Assessment would ensure that no significant adverse impacts would occur to the human environment. A draft of this Environmental Assessment was made available for public and agency review from December 3, 1982, to February 28, 1983.

On the basis of the information contained in the final Environmental Assessment, it is my determination that none of the alternatives analyzed constitutes a major federal action affecting the quality of the human environment. Therefore, an environmental impact statement will not be necessary.



District Manager, Spokane District
Bureau of Land Management


Concurrence:



State Director, Oregon/Washington
Bureau of Land Management

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SPOKANE DISTRICT OFFICE
EAST 4217 MAIN
SPOKANE, WASHINGTON 99202

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